

## Scientific Note:

To the souls of the Turkish Martyrs

## Second attempt for determining the *Lepidoptera* fauna of Kozluk with notes on some other insects of the District (Batman Prov., East Turkey) - II

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Results of the first attempt by the authors to Kozluk *Lepidoptera* fauna were published in Nr. 17 of this serial<sup>1</sup>. In that publications totally 44 species were listed for Batman Province. In the previous part of this study<sup>2</sup>, some information about the Kozluk District and its biodiversity were presented with illustrations. The present study deals with the first lepidopterological results of this survey. Totally 58 diurnal *Lepidopteran* species recorded in the Kozluk district are given.

The studied localities<sup>3</sup> in Kozluk District and their recorded diurnal *Lepidopteran* lists are as follows;

1- Kozluk, 2- Yukarıalçılı<sup>4</sup>, 3- Yazılı<sup>5</sup>, 4- road to Yenidoğan<sup>6</sup>, 5- North West of Kozluk<sup>7</sup>, 6-

<sup>1</sup> Kemal,M., Koçak,A.Ö. & K.Akın, 2008, Butterflies of Batman Province (East Turkey) (*Lepidoptera*). *Cesa News* 17: 1-6, 7 figs.

<sup>2</sup> Kemal,M. & A.Ö.Koçak, 2008, Second attempt for determining the *Lepidoptera* fauna of Kozluk with notes on some other insects of the District (Batman Prov., East Turkey) – I. *Cesa News* 20: 1-15, 26 figs.; *ibid.* 21: 1-15, 28 figs.; *ibid.* 22: 1-13, 25 figs.

<sup>3</sup> see *Cesa News* 20, maps 1 & 2.

<sup>4</sup> At the locality, Yukarıalçılı the following species of 4 crepuscular moth and butterflies were recorded on 6.6.2008: *Catocala abacta* (observed), *Eogenes alcides* (1♂), *Melanargia grumi* (1♀), *Pseudochazara anthelea* ssp. *selcuki* (8♂).

<sup>5</sup> At the locality, Yazılı (700m) the following 20 species of butterflies were recorded on 7.6.2008: *Argynnis (Pandoriana) pandora* (1♀), *Brintesia circe* (1♂), *Celastrina argiolus* (2♂), *Cigaritis uigurica* (2♂), *Coenonympha saadi* (3♂), *Euapatura mirza* (1♂), *Gonepteryx farinosa* (1♂), *Lampides boeticus* (1♂), *Limenitis reducta* (1♂), *Lycaena (Alciphronia) alciphron* (1♂), *Maniola telmessia* (1♀), *Melanargia grumi* (6♂♀), *Muschampia poggei* (1♂), *Plebejus (Kretania) carmon* (1♂), *Pseudochazara anthelea* (1♀), *Satyrrium marcidum* (4♂♀), *Spialia (Neospialia) orbifer* (1♂), *Tarucus baltanicus* (2♂), *Thymelicus* sp. (2♂), *Turanana endymion* (2♂).

South of Armutlu<sup>8</sup>, 7- Upper Geçitaltı (1550m), 8- Natopa, 9- Çarokhan<sup>9</sup>, 10- Upper Geçitaltı (1430m).

### A short evaluation of the specific composition of the two localities at Geçitaltı

In the vicinity of Geçitaltı, the authors studied four different sites (nr.7-10, see above). Among them Upper Geçitaltı (nr.7) and Natopa (nr.8) are better investigated. Their results are given in the Table 1.

**Table – 1.** Two mountain steppe localities and their specific composition. 1. Upper Geçitaltı (Tragacanthic *Astragalus*-malacophyllous mountain steppe, dominated by *Astragalus*, *Achillea*, *Gundelia*, *Phlomis*, *Thymus*); 2. Natopa (Tragacanthic *Astragalus* – malacophyllous mountain steppe, dominated by *Astragalus*, *Thymus*, *Euphorbia*, *Phlomis*, *Onosma*, *Salvia*, *Marrubium*). Faunal similarity of these localities is %53.33.

List of the diurnal Lepidoptera at Geçitaltı vicinity (alphabetically arranged 32 species in 9 families)	1.Upper Geçitaltı (1560m) 22 species	2.Natopa (1540m) 23 species
<i>Aporia crataegi</i> (Pieridae)	x	x
<i>Chazara briseis</i> (Satyridae)		x
<i>Colias crocea</i> (Pieridae)		x
<i>Hyponephele lupina</i> (Satyridae)	x	
<i>Lycaena (Alciphronia) alciphron</i> (Lycaenidae)		x
<i>Lycaena (Margelycaena) euphratica</i> (Lycaenidae)		x
<i>Lycaena (Thersamonia) kefersteinii</i> (Lycaenidae)	x	
<i>Malacosoma alpicola</i> (Lasiocampidae)		x
<i>Melanargia grumi</i> (Satyridae)	x	x
<i>Melitaea didyma</i> (Argynnidae)	x	x
<i>Melitaea fascelis</i> (Argynnidae)	x	x
<i>Melitaea phoebe</i> (Argynnidae)	x	
<i>Muschampia nomas</i> (Hesperiidae)	x	x
<i>Muschampia poggei</i> (Hesperiidae)	x	x
<i>Noctuella vespertalis</i> (Pyralidae)	x	
<i>Orthostixis cribraria</i> (Geometridae)	x	x
<i>Pansteugia aerealis</i> (Pyralidae)	x	
<i>Pieris krueperi</i> (Pieridae)	x	
<i>Plebejus (Kretania) carmon</i> (Lycaenidae)	x	x
<i>Plebejus (Plebejidea) loewii</i> (Lycaenidae)	x	
<i>Plebejus (Plebejides) sephirinus?</i> (Lycaenidae)	x	
<i>Pleurota</i> sp. (Oecophoridae)	x	x
<i>Polyommatus (Aricia) agestis</i> (Lycaenidae)		x
<i>Pseudophilotes vicrama</i> (Lycaenidae)		x
<i>Pyrgus sidae</i> (Hesperiidae)	x	x
<i>Rhodostrophia discopunctata</i> (Geometridae)		x
<i>Satyrium abdominalis</i> (Lycaenidae)	x	
<i>Scopula immistaria</i> (Geometridae)		x
<i>Spialia orbifer</i> (Hesperiidae)		x
<i>Thymelicus</i> sp. (Hesperiidae)	x	x
<i>Turanana endymion</i> (Lycaenidae)		x
<i>Zygaena cambysea?</i> (Zygaenidae)	x	
<i>Zygaena purpuralis</i> (Zygaenidae)	x	x

<sup>6</sup> At the locality, to Yenidoğan (925m) the following 8 species of butterflies were recorded on 7.6.2008: *Coenonympha saadi* (1♂), *Hyponephele wagneri* (1♂), *Lasiommata megera* (1♂), *Melanargia grumi* (4♂♀), *Pseudochazara anthelea* ssp. *selcuki* (3♂), *Satyrium marcidum* (1♂), *Tarucus balkanicus* (1♂), *Thymelicus hyrax* (1♂).

<sup>7</sup> At the locality, Kozluk NW (820m) the following 4 species of butterflies were recorded on 8.6.2008: *Coenonympha saadi* (4♂), *Euapatura mirza* (observed), *Hyponephele wagneri* (5♂♀), *Melanargia grumi* (2♀).

<sup>8</sup> At the locality, South of Armutlu, the following 15 species of butterflies were recorded on 8.6.2008: *Argynnis (Pandoriana) pandora* (observed), *Carcharodus orientalis* (1♂), *Colias crocea* (observed), *Erynnis (Hesperopegasus) marlovi* (observed), *Euapatura mirza* (observed), *Hipparchia syriaca* (observed), *Hyponephele wagneri* (1♂), *Lycaena (Thersamonia) kefersteinii* (1♂), *Melanargia grumi* (3♂♀), *Muschampia poggei* (1♂), *Pieris krueperi* (1♂), *Pseudochazara anthelea* ssp. *selcuki* (2♂ 1♀), *Pseudochazara telephassa* (2♂), *Pseudochazara pelopea* (1♂), *Thymelicus hyrax* (2♂).

<sup>9</sup> At the locality, Çarokhan (1560m) the following 6 species of butterflies were recorded on 8.6.2008: *Carcharodus lavatherae* (1♂), *Muschampia poggei* (21♂), *Polyommatus amandus* (1♂), *Pyrgus sidae* (1♂), *Thymelicus* sp. (1♂), *Turanana endymion* (1♂).

Complementary notes to the list of Geçitaltı: At a place (1430m), the following 10 species were recorded on muddy ground: *Coenonympha saadi* (Satyridae)\*, *Cynthia cardui* (Argynnidae)\*, *Hipparchia syriaca* (Satyridae)\*, *Melanargia grumi* (Satyridae), *Muschampia nomas* (Hesperiidae), *Muschampia poggei* (Hesperiidae), *Plebejus (Kretania) carmon* (Lycaenidae), *Pseudochazara anthelea* (Satyridae)\*, *Pseudochazara pelopea* (Satyridae)\*, *Turanana endymion* (Lycaenidae) [additional species were marked with \*].

At Çarokhan (1560m) following species were sipping mineral water from the earth: *Muschampia poggei* (Hesperiidae), *Thymelicus* sp. (Hesperiidae), *Carcharodus lavatherae* (Hesperiidae)\*, *Turanana endymion* (Lycaenidae), and *Polyommatus (Plebicula) amandus* (Lycaenidae)\*.

In the vicinity of Geçitaltı, totally 39 species<sup>10</sup> were recorded within few hours in the mid-day.

## Updated List of the Lepidoptera of Kozluk District (Batman Province)

In the list below totally 58 diurnal species, belonging to 10 families, are mentioned. New records to Kozluk district are marked with \*. Besides, diurnal moths are marked with #.

1. *Argynnis (Pandoriana) pandora* ([Denis & Schiffermüller],1775) (Argynnidae)\*
2. *Cynthia cardui* (Linnaeus,1758) (Argynnidae)\*
3. *Euapatura mirza* Ebert,1971 (Argynnidae)
4. *Limenitis (Azuritis) reducta* Staudinger,1901 (Argynnidae)\*
5. *Melitaea (Cinclidia) phoebe* phoebe (Goeze,1779) (Argynnidae)\*
6. *Melitaea (Didymaeformis) didyma* (Esper,[1779]) (Argynnidae)\*
7. *Melitaea (Didymaeformis) fascelis* (Fabricius,1787) (Argynnidae)\*
8. *Orthostixis cribraria* (Hübner,[1799]) (Geometridae)\* #
9. *Rhodostrophia discopunctata* Amsel,1935 (Geometridae)\* #
10. *Scopula immistaria* (Herrich-Schäffer,[1852]) (Geometridae)\* #
11. *Carcharodus (Lavatheria) lavatherae* (Esper,[1783]) (Hesperiidae)\*
12. *Carcharodus (Reverdinus) orientalis* Reverdin,1913 (Hesperiidae)\*
13. *Carcharodus (s.str.) alceae* (Esper,[1780]) (Hesperiidae)
14. *Eogenes alcides* Herrich-Schäffer,[1852] (Hesperiidae)
15. *Erynnis (Hesperopegasus) marloyi* (Boisduval,[1834]) (Hesperiidae)\*
16. *Muschampia nomas* (Lederer,1855) (Hesperiidae)\*
17. *Muschampia poggei* (Lederer,1858) (Hesperiidae)\*
18. *Pyrgus sidae* (Esper,[1784]) (Hesperiidae)\*
19. *Spialia (Neospialia) orbifer* (Hübner,[1823]) (Hesperiidae)
20. *Thymelicus hyrax* (Lederer,1861) (Hesperiidae)\*
21. *Malacosoma alpicola* Staudinger,1870 (Lasiocampidae)\* #
22. *Celastrina argiolus* (Linnaeus,1758) (Lycaenidae)\*
23. *Chilades (Freyeria) trochylus* (Freyer,[1843]) (Lycaenidae)
24. *Cigaritis uighurica* Kemal & Koçak,2005 (Lycaenidae)\*
25. *Lampides boeticus* (Linnaeus,1767) (Lycaenidae)\*
26. *Lycaena (Alciphronia) alciphron* (Rottemburg,1775) (Lycaenidae)\*
27. *Lycaena (Margelycaena) euphratica* (Eckweiler,1989) (Lycaenidae)\*
28. *Lycaena (Thersamonia) kefersteinii* (Gerhard,[1850]) (Lycaenidae)\*
29. *Plebejus (Kretania) carmon* (Gerhard,[1851]) (Lycaenidae)\*
30. *Plebejus (Plebejides) zephyrinus* (Christoph,1884) (Lycaenidae)\*
31. *Polyommatus (Albulina (Plebejidea)) loewii* (Zeller,1847) (Lycaenidae)\*
32. *Polyommatus (Aricia (s.str.)) agestis* ([Denis & Schiffermüller],1775) (Lycaenidae)
33. *Polyommatus (s.str. (Plebicula)) amandus* (Schneider,1792) (Lycaenidae)\*
34. *Polyommatus (s.str.) icarus* (Rottemburg,1775) (Lycaenidae)

<sup>10</sup> Recorded families with their species are as follows: Argynnidae (4), Geometridae (3), Hesperiidae (6), Lasiocampidae (1), Lycaenidae (11), Pieridae (3), Pyralidae (2), Satyridae (6), Zygaenidae (2).

35. *Pseudophilotes vicrama* (Moore,1865) (*Lycaenidae*)\*
36. *Satyrium* (*Nordmannia*) *abdominalis* (Gerhard,[1850]) (*Lycaenidae*)\*
37. *Satyrium* (*Nordmannia*) *marcidum* (Riley,1921) (*Lycaenidae*)\*
38. *Tarucus* (s.str.) *balkanicus* (Freyer,[1843]) (*Lycaenidae*)
39. *Turanana endymion* (Freyer,[1850]) (*Lycaenidae*)\*
40. *Catocala* (s.str.) *abacta* Staudinger,1900 (*Noctuidae*)\* #
41. *Aporia* (s.str.) *crataegi* (Linnaeus,1758) (*Pieridae*)\*
42. *Colias* (*Eriocolias*) *crocea* (Fourcroy,1785) (*Pieridae*)\*
43. *Gonepteryx* (s.str.) *farinosa* (Zeller,1847) (*Pieridae*)\*
44. *Pieris* (*Artogeia*) *krueperi* Staudinger,1860 (*Pieridae*)\*
45. *Noctuelia vespertalis* Herrich-Schäffer,[1855] (*Pyrilidae*)\* #
46. *Panstegia aerealis* (Hübner,1793) (*Pyrilidae*)\* #
47. *Brintesia circe* (Fabricius,1775) (*Satyridae*)\*
48. *Coenonympha* (s.str.) *saadi* (Kollar,[1849]) (*Satyridae*)
49. *Hipparchia* (s.str.) *syriaca* (Staudinger,1871) (*Satyridae*)\*
50. *Hyponephele* (s.str. (*Turaninephele*)) *wagneri* (Herrich-Schäffer,[1846]) (*Satyridae*)
51. *Hyponephele* (s.str.) *lupina* (Costa,[1836]) (*Satyridae*)\*
52. *Lasiommata megera* (Linnaeus,1767) (*Satyridae*)\*
53. *Maniola* (*Telmessiola*) *telmessia* (Zeller,1847) (*Satyridae*)\*
54. *Melanargia* (*Turcargia*) *grumi* Standfuss,1892 (*Satyridae*)\*
55. *Pseudochazara* (*Achazara*) *anthelea* (Hübner,[1824]) (*Satyridae*)
56. *Pseudochazara* (*Achazara*) *telephassa* (Geyer,[1827]) (*Satyridae*)\*
57. *Pseudochazara* (s.str.) *pelopea* (Klug,1832) (*Satyridae*)\*
58. *Zygaena* (*Mesembrynus*) *purpuralis* (Brünnich,1763) (*Zygaenidae*)\* #

Results on the nocturnal species collected in the district will be separately published.

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